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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,465	10/03/2003	Andrew Paul Ormerod	F3318(C)	3327
201 7590 12/07/2007 UNILEVER INTELLECTUAL PROPERTY GROUP 700 SYLVAN AVENUE, BLDG C2 SOUTH ENGLEWOOD CLIFFS, NJ 07632-3100			EXAMINER DOERRLER, WILLIAM CHARLES	
			ART UNIT 3744	PAPER NUMBER
			MAIL DATE 12/07/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/678,465

Applicant(s)

ORMEROD ET AL.

Examiner

William C. Doerrler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the amendments made to claims 1 and 14, "maximum and minimum temperatures between the surface and the core of the vegetable or part thereof is within 6° C of each other" is confusing. In the previous step (i) b) the vegetable is heated up to 70 degrees. This would make the maximum temperature 70 degrees. When the vegetable is then cooled in step (ii) to -15, the difference between the maximum and the minimum temperatures is 85 degrees. While it is realized that applicant used this language since it is the language in the specification, it appears that what is intended is -- the maximum difference between the surface and the core any time during the freezing process-- is 6 degrees. The remaining claims depend from either claims 1 or 14, so they are unclear due to this association.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane (EP 815,746) in view of Bourne '712.

Yamane (in paragraphs 21 and 41) discloses applicant's basic inventive concept, a food freezing system which undercools the food to -5 degrees C and then further freezes the food, substantially as claimed with the exception of using a calcium salt to lower the freezing point. Bourne '712 shows a food freezing system which heats the vegetables being treated to 140-150 F (60-68C) and using calcium salts during the heating to maintain the firmness of the vegetables (see abstract). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention from the

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teaching of Bourne '712 to use a calcium salt and heat to lower the freezing point of the food to permit longer storage and improved taste and texture. The vegetables treated are listed in the first paragraph of the detailed description in column 3 of Bourne. The calcium salts are listed in lines 7-11 of column 5 of Bourne. In regard to claims 10 and 14-16, since Bourne discloses the same process as applicants' claim, any material treated by the process is seen to have the same characteristics. Bourne '712 discloses applicants' basic inventive concept, a vegetable freezing method which treats the vegetables with a calcium salt and heats the vegetables to about 65C before freezing them to -18, substantially as claimed with the exception of specifying the percent of calcium in the solution or cooling tomatoes. Bourne specifies the remaining calcium in the product, but not the amount of calcium in the solution to produce this. While it is believed by the examiner that applicant's claimed range will leave the desired calcium in the product of Bourne, one of ordinary skill in the art would consider such a solution to impart the desired effects taught by Bourne. Likewise, the preserving of tomatoes is seen as obvious since Bourne discloses a method of preserving grown foodstuffs and tomatoes are a well known, commonly preserved grown food.

Claims 1-5 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane (EP 815,746) in view of Frane et al.

Yamane (in paragraphs 21 and 41) discloses applicant's basic inventive concept, a food freezing system which undercools the food to -5 degrees C and then further freezes the food, substantially as claimed with the exception of using a calcium salt to lower the freezing point. Frane et al discloses a preservation method for vegetables which uses

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calcium salts before freezing the vegetables to 0F (-18 C). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention from the teaching of Frane et al to modify the freezing system of Yamane by using calcium salts to obtain vegetables which maintain good texture and text when thawed. While the heating steps of Frane et al do not match those in applicants' claim 1, this is seen as immaterial since the calcium salts are an alternative to the heating. Calcium citrate (for claim 2) is found in line 68 of column 2 of Frane. In regard to claim 4, the calcium limit is found at the top of column 3 of Frane. In regard to claim 5, Frane's example 1 immerses the vegetables in the solution for 7 minutes. In regard to claims 10 and 14-16, since Frane et al discloses the same process as applicants' claim, any material treated by the process is seen to have the same characteristics. In regard to claim 12, see example 2 of Frane.

Claims 1,2,6,7,10,11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane (EP 815,746) in view of Bengtsson et al.

Yamane (in paragraphs 21 and 41) discloses applicant's basic inventive concept, a food freezing system which undercools the food to -5 degrees C and then further freezes the food, substantially as claimed with the exception of using a calcium salt. Bengtsson et al discloses a blanching method for vegetables which heats the vegetables to applicants' claimed range (see examples) and teaches calcium chloride as a firming treatment (see line 15 of column 2). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention from the teaching of Bengtsson et al to modify the freezing system of Yamane by using a calcium salt to derive vegetables with retained texture and flavor. In regard to claims 10 and 14-16, since the proposed

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combination discloses the same process as applicants' claim, any material treated by the process is seen to have the same characteristics.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8 and 10-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 11 of copending Application No. 11-215,255. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim systems for freezing vegetables by heating the vegetable, undercooling the vegetables and then deep freezing the vegetables. It is considered obvious to an ordinary practitioner in the art that to perform either independent claim of the present invention, one would be performing claim 11 of the '255 application. As the claims are not patentably distinct, a terminal disclaimer is required.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-8 and 10-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3-5 of copending Application No. 10/678,461. Although the conflicting claims are not identical, they are not patentably distinct from each other because the earlier claims dominate the current claims. The present claims add the addition of heating the material (blanching) or using a calcium salt. Both of these food treatments were well known at the time of applicant's earlier application. It would have been obvious to one of ordinary skill in the art at the time of applicant's earlier invention to add a blanching or calcium salt step to preserve the texture and flavor of the frozen material. In regard to the substitution of vegetables for fruit for the material being frozen, this is seen as obvious to an ordinary practitioner, as both contain similar plant cells. It is further noted that applicant has claimed tomatoes in the current case and they are often considered fruits, and would be covered by applicant's earlier claims. As the claims are not patentably distinct, a terminal disclaimer is required.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

Applicant's arguments filed 11-9-2007 have been fully considered but they are not persuasive. It is noted that applicant did not argue the double patenting rejections,



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or file a terminal disclaimer. While this makes the response non-responsive, the final rejection was made to advance prosecution. Both of applicants' other applications claim the temperature difference which has been added to the independent claims of this case.

While Yamane does not explicitly state that the temperature difference between the core and the outer surface of the food being frozen never exceeds 6 degrees, paragraphs 18 and 28 states that the freezing is performed at an extremely slow rate (.01 degree C/hr). At this cooling rate, the food being cooled will inherently be within applicants' claimed temperature difference. The cooling rate is so slow that a nearly uniform temperature is assured.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Doerrler whose telephone number is (571) 272-4807. The examiner can normally be reached on Monday-Friday 6:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William C Doerrler  
Primary Examiner  
Art Unit 3744

WCD